

***In the Claims:***

Please amend the claims as follows:

1. (PREVIOUSLY AMENDED) An adapter comprising:
  - (a) a first and a second surface;
  - (b) at least one first interconnect on the first surface,
  - (c) at least one second interconnect on the second surface, the at least one second interconnect comprising a through hole connect;
  - (d) at least one connective path between the first and second interconnects, and
  - (e) a signal modifying circuit between the first interconnect and the second interconnect.
2. (PREVIOUSLY AMENDED) The adapter of Claim 1 wherein the at least one first interconnect is physically spaced to correspond to a first pin configuration of a power module.
3. (PREVIOUSLY AMENDED) The adapter of Claim 1 wherein the at least one second interconnect is physically spaced to correspond to a second pin configuration of an end user's circuit board.
4. (ORIGINAL) The adapter of Claim 1 wherein a signal modifying circuit acts upon an input to the adapter.
5. (ORIGINAL) The adapter of Claim 1 wherein a signal modifying circuit acts upon an output to the adapter.
6. (ORIGINAL) The adapter of Claim 2 wherein the power module is a DC-to-DC converter.
7. (PREVIOUSLY AMENDED) The adapter of Claim 2 wherein the power module is an AC-to-DC converter.
8. (ORIGINAL) The adapter of Claim 2 wherein the power module is a DC-to-AC inverter.

9. (ORIGINAL) The adapter of Claim 1 wherein the first interconnects comprise surface mount connects.
10. (ORIGINAL) The adapter of Claim 1 wherein the first interconnects comprise through hole connects.
11. (CANCEL)
12. (CANCEL)
13. (CURRENTLY AMENDED) The adapter of Claim 1 wherein the signal modifying circuit ~~comprise~~ comprises a filter.
14. (ONCE AMENDED) The adapter of Claim 1 wherein the signal modifying circuit ~~comprise~~ comprises an overvoltage protection device.
15. (NEW) The adapter of Claim 1, further comprising:
  - (a) at least a second interconnect on the first surface,
  - (b) at least one connective path between the first interconnect on the first surface and the second interconnect on the first surface, and
  - (c) a signal modifying circuit between the first interconnect on the first surface and the second interconnect on the first surface.
16. (NEW) The adapter of Claim 1, further comprising:
  - (a) at least a second interconnect on the second surface,
  - (b) at least one connective path between the first interconnect on the second surface and the second interconnect on the second surface, and
  - (c) a signal modifying circuit between the first interconnect on the second surface and the second interconnect on the second surface.

## REMARKS

Claims 1 – 10, 13 and 14 and newly entered claims 15 and 16 are now pending in the present application. Examiner acknowledges the amendments to Claims 1 – 3, 7, 13 and 14, and the cancellation of Claims of 11 and 12.

### I. 35 U.S.C. § 102, Anticipation

The Examiner has rejected Claims 1 – 10, 13 and 14 under 35 U.S.C. § 102(e) as being anticipated by Patel et al., hereinafter “Patel”, (U.S. Patent No. 6,366,467). This rejection is respectfully traversed.

Patel does not teach “An adapter comprising: (a) a first and a second surface; at least one first interconnect on the first surface, (c) at least one second interconnect on the second surface, the at least one second interconnect comprising a through hole connect; . . .” (Claim 1; emphasis added). However, the Examiner stated on page 4 of the Detailed Action that “[A]pplicants recitation of a ‘through hole connect’ is nothing more than the recitation of a pin with an **intended use . . .**” Applicants respectfully disagree.

Examiner reads the language “second interconnect comprising a though hole connect” (see Claim 1) as “a pin . . . which may be used as a *socket connect* . . . or as a *through hole connect* in a through hole structure . . .” (Detailed Action, page 4; emphasis added). In contract, Claim 1 claims a definite structure, an interconnect “comprising a through hole connect” (see US 2003/0058628 A1: Figs. 3 and 4; Page 2 [0019]).

It is therefore believed that independent Claim 1, and all claims dependent therefrom, are allowable. An indication of such is respectfully requested.

### II. 35 U.S.C. § 103, Obviousness

The Examiner has rejected Claim 8 under 35 U.S.C. § 103(a) as being unpatentable over Patel in view of Li et al., hereinafter “Li”, (U.S. Patent No. 6,525,944). Under MPEP 2141, when applying 35 U.S.C. 103, the following tenets of patent law must be adhered to:

- (A) The claimed invention must be considered as a whole;
- (B) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination;

(C) The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and

(D) Reasonable expectation of success is the standard with which obviousness is determined. *Hodosh v. Block Drug Co., Inc.*, 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986).

As stated in Applicant's "Description of the Related Art," there exists a need "for an improved adapter that can carry the higher current load associated with power modules . . ." (Page 2, [00009]). Thus, Applicants' invention must be considered as a whole towards achieving at least this end. Furthermore, Applicants respectfully assert that Examiner's references considered as a whole do not suggest the desirability of making the combination of second interconnects and through hole connects.

Specifically, Applicants agree with Examiner that "Patel et al. does not teach that second interconnects 508 are 'through hole connects' . . ." (Detailed Action; Page 5, Paragraph II). However, Applicants respectfully disagree that Claim 1 is obvious over Patel in view of Li.

To clarify, Li teaches an apparatus and method for communicating optical signals to an electronic device enclosed within a flip-chip package (Column 1, Lines 6 – 8). Li further discloses in Figure 4 plated through holes in a printed circuit board that accept pins (Column 4, Lines 24 – 30). However, Patel in view of Li still does not suggest the desirability "at least one second interconnect comprising a through hole connect" for an adapter coupling a power module to a circuit board. For example, Li does not mention the reduction in signal noise offered by the Examiner as a benefit of through hole connect over surface mounts. In short, Examiner does not show how Patel in view of Li suggests the desirability of the invention.

It is therefore believed that independent Claim 1, and all claims dependent therefrom, are allowable. An indication of such is respectfully requested. It is submitted that no new matter has been added. Applicants request reconsideration of the application in light of the amendments and the arguments herein presented.

**Conclusion**

It is respectfully urged that the subject application is patentable over the cited references and is now in condition for allowance.

The examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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Respectfully submitted,

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